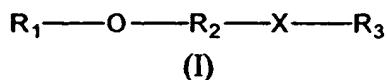


## Claims

What is claimed is:

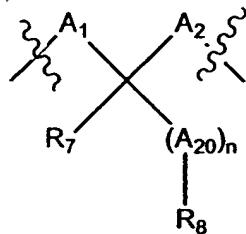
1. A compound of formula (I):



wherein:

$R_1$  is aryl;

$R_2$  is a group of formula (II):



(II)

wherein

$A_1$ ,  $A_2$ , and  $A_{20}$  are each independently alkylene or substituted alkylene;

$n$  is 0 or 1;

$R_7$  is hydrogen, alkyl, or substituted alkyl;

$R_8$  is  $NR_{10}R_{11}$ , wherein each of  $R_{10}$  and  $R_{11}$  is independently hydrogen, alkyl, or substituted alkyl; and

$X$  is oxygen and  $R_3$  is aryl, heteroaryl, cycloalkyl, substituted cycloalkyl, heterocycle, alkyl, or substituted alkyl; or

$X$  is a direct bond and  $R_3$  is an N-linked heteroaryl or an N-linked heterocycle;

wherein any aryl of  $R_1-R_3$  can optionally be substituted with from 1 to 5 substituents  $R_g$ ; wherein each  $R_g$  is independently selected from the group consisting

of hydroxy, alkyl, substituted alkyl, alkoxy, cycloalkoxy, substituted cycloalkoxy, methanediol, ethanediol, cycloalkyl, substituted alkyl, substituted alkoxy, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy, carboxy, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heteroaryl, heteroaryloxy, heterocyclic, heterocyclooxy, heteroaryl and trihalomethyl;

and wherein any heteroaryl of R<sub>2</sub>-R<sub>3</sub> can be optionally substituted with 1 to 5 substituents R<sub>h</sub>, wherein each R<sub>h</sub> is independently selected from the group consisting of hydroxy, alkyl, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, substituted alkyl, arylalkyl, heteroarylalkyl, heterocyclealkyl, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy, carboxyl, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heterocyclic, and trihalomethyl.

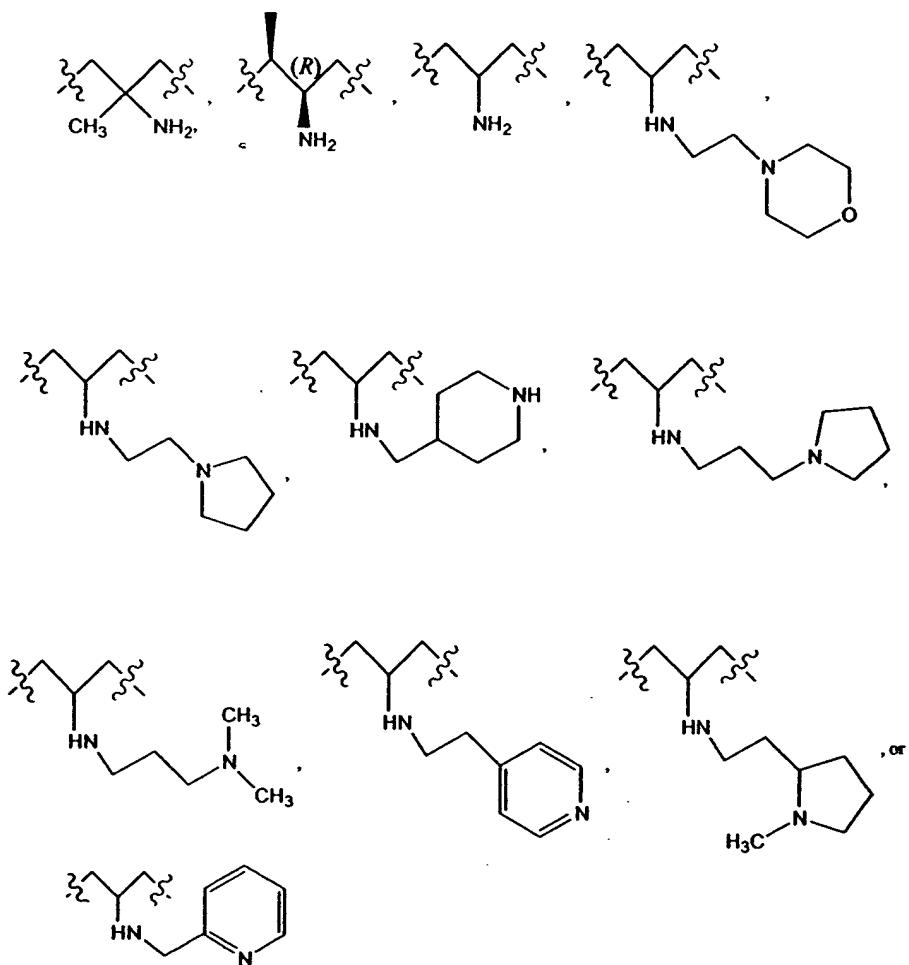
or a pharmaceutically acceptable salt thereof.

2. The compound of claim 1 wherein R<sub>1</sub> is aryl optionally substituted with one or more halo or alkyl.
3. The compound of claim 1 wherein R<sub>1</sub> is 2-methylphenyl, 2-chloro-6-methylphenyl, 2,4,6-trifluorophenyl, 2,6-dimethylphenyl, or 2,4-dimethylphenyl.
4. The compound of claim 1 wherein A<sub>1</sub> is methylene or 1,1-ethanediyl, and A<sub>2</sub> is methylene.
5. The compound of claim 1 wherein R<sub>7</sub> is hydrogen or methyl.
6. The compound of claim 1 wherein R<sub>8</sub> is amino.
7. The compound of claim 1 wherein n is 0.

8. The compound of claim 1 wherein R<sub>8</sub> is NR<sub>10</sub>R<sub>11</sub>; and R<sub>11</sub> is heterocyclealkyl, heteroarylalkyl, or alkyl.

9. The compound of claim 1 wherein R<sub>8</sub> is NR<sub>10</sub>R<sub>11</sub>; R<sub>10</sub> is hydrogen; and R<sub>11</sub> is 2-morpholinoethyl, 2-(pyrrolidin-1-yl)ethyl, 4-piperidinylmethyl, 3-(N,N-dimethylamino)propyl, 2-(1-methyl-pyrrolidin-2-yl)ethyl, 2-(4-pyridyl)ethyl, or 3-(pyrrolidin-1-yl)propyl.

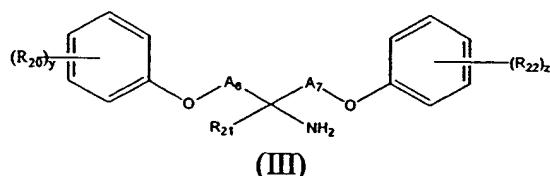
10. The compound of claim 1 wherein R<sub>2</sub> is a group of the formula:



11. The compound of claim 1 wherein X is a direct bond and R<sub>3</sub> is 3,5-dimethylpyrazol-1-yl, 2-phenylimidazol-1-yl, 2-ethylimidazol-1-yl, 1-benzimidazolyl, 4-(methoxycarbonyl)imidazol-1-yl, 4-methyl-2-ethylimidazol-1-yl, or 4-phenyl-1-imidazol-1-yl.

12. The compound of claim 1 wherein X is oxygen and R<sub>3</sub> is 3,5-dichlorophenyl, 2-thien-2-yethyl, 4-methylbenzyl, 4-methoxyphenethyl, 4-methylphenethyl, 3-(benzyloxy)propyl, 2-[3-(6-methylpyrid-2-yl)propyloxy]ethyl, 2-(ethoxy)ethyl, 3-(ethoxy)propyl, benzyl, cyclopropylmethyl, 4-(butoxy)benzyl, 2-(cyclohexyloxy)ethyl, pentyl, 3-phenylpropyl, 2-[2-(ethoxy)ethoxy]ethyl, 2-phenylbenzyl, 3-(N,N-dimethyl)propyl, *tert*-butyl, 2-(phenoxy)ethyl, 2-(pyrid-4-yl)ethyl, 2-methylphenyl, 2-chloro-6-methylphenyl, 2,4,6-trimethylphenyl, 2,6-dimethylphenyl, 2,4-dimethylphenyl, 3,4-methylenedioxy)benzyl, 3-(pyrid-3-yl)propyl, or 4-(N,N-dimethyl)phenethyl.

13. The compound of claim 1 which is a compound of formula (III):



wherein:

A<sub>6</sub> and A<sub>7</sub> are each independently alkylene or substituted alkylene;  
each R<sub>20</sub> is independently halo, alkyl, substituted alkyl, aryl, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, trifluoromethyl, cyano, nitro, hydroxy, NR<sub>4</sub>R<sub>5</sub>, or CO<sub>2</sub>R<sub>6</sub>;  
R<sub>21</sub> is hydrogen, alkyl, or substituted alkyl;  
each R<sub>22</sub> is independently halo, alkyl, substituted alkyl, aryl, heteroaryl, cycloalkyl, substituted cycloalkyl, heterocycle, alkoxy, substituted alkoxy,

cycloalkoxy, substituted cycloalkoxy, trifluoromethyl, cyano, nitro, hydroxy, NR<sub>4</sub>R<sub>5</sub>, or CO<sub>2</sub>R<sub>6</sub>;

y is 0, 1, 2, 3, 4, or 5;

z is 0, 1, 2, 3, 4, or 5; and

R<sub>4</sub>-R<sub>6</sub> are each independently hydrogen, alkyl, or substituted alkyl;

wherein any aryl of A<sub>6</sub>, A<sub>7</sub>, R<sub>20</sub>-R<sub>22</sub> and R<sub>4</sub>-R<sub>6</sub> can optionally be substituted with from 1 to 5 substituents R<sub>g</sub>; wherein each R<sub>g</sub> is independently selected from the group consisting of hydroxy, alkyl, substituted alkyl, alkoxy, cycloalkoxy, substituted cycloalkoxy, methanediol, ethanediol, cycloalkyl, substituted alkyl, substituted alkoxy, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy, carboxy, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heteroaryl, heteroaryloxy, heterocyclic, heterocyclooxy, heteroaryl and trihalomethyl;

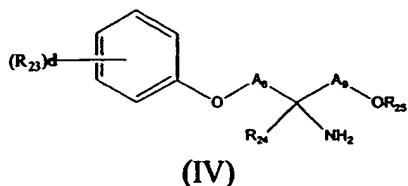
and wherein any heteroaryl of A<sub>6</sub>, A<sub>7</sub>, R<sub>20</sub>-R<sub>22</sub> and R<sub>4</sub>-R<sub>6</sub> can be optionally substituted with 1 to 5 substituents R<sub>h</sub>, wherein each R<sub>h</sub> is independently selected from the group consisting of hydroxy, alkyl, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, substituted alkyl, arylalkyl, heteroarylalkyl, heterocyclealkyl, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy, carboxyl, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heterocyclic, and trihalomethyl.

or a pharmaceutically acceptable salt thereof.

14. The compound of claim 13 wherein A<sub>6</sub> is methylene or 1,1-ethanediyl and A<sub>7</sub> is methylene.

15. The compound of claim 13 wherein R<sub>21</sub> is hydrogen or methyl.

16. The compound of claim 1 which is a compound of formula (IV):



wherein:

$A_8$  and  $A_9$  are each independently alkylene or substituted alkylene;  
 each  $R_{23}$  is independently halo, alkyl, substituted alkyl, aryl, heteroaryl, cycloalkyl, substituted cycloalkyl, heterocycle, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, trifluoromethyl, cyano, nitro, hydroxy,  $NR_4R_5$ , or  $CO_2R_6$ ;  
 $R_{24}$  is hydrogen, alkyl, or substituted alkyl;  
 $R_{25}$  is alkyl, substituted alkyl, aryl, heteroaryl, cycloalkyl, substituted cycloalkyl, or heterocycle;  
 $d$  is 0, 1, 2, 3, 4, or 5; and  
 $R_4-R_6$  are each independently hydrogen, alkyl, or substituted alkyl;  
 wherein any aryl of  $A_8$ ,  $A_9$ ,  $R_{23}-R_{25}$  and  $R_4-R_6$  can optionally be substituted with from 1 to 5 substituents  $R_g$ ; wherein each  $R_g$  is independently selected from the group consisting of hydroxy, alkyl, substituted alkyl, alkoxy, cycloalkoxy, substituted cycloalkoxy, methanediol, ethanediol, cycloalkyl, substituted alkyl, substituted alkoxy, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy, carboxy, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heteroaryl, heteroaryloxy, heterocyclic, heterocyclooxy, heteroaryl and trihalomethyl; and wherein any heteroaryl of  $A_8$ ,  $A_9$ ,  $R_{23}-R_{25}$  and  $R_4-R_6$  can be optionally substituted with 1 to 5 substituents  $R_h$ , wherein each  $R_h$  is independently selected from the group consisting of hydroxy, alkyl, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, substituted alkyl, arylalkyl, heteroarylalkyl, heterocyclealkyl, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy,

carboxyl, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heterocyclic, and trihalomethyl.

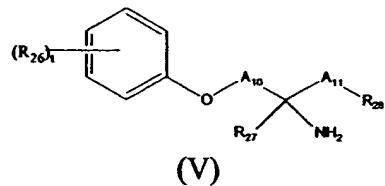
or a pharmaceutically acceptable salt thereof.

17. The compound of claim 16 wherein A<sub>8</sub> is methylene and A<sub>9</sub> is methylene.

18. The compound of claim 16 wherein R<sub>24</sub> is hydrogen or methyl.

19. The compound of claim 16 wherein R<sub>25</sub> is 2-morpholinoethyl, 2-(pyrrolidin-1-yl)ethyl, 4-piperidinylmethyl, 3-(N,N-dimethylamino)propyl, 2-(1-methyl-pyrrolidin-2-yl)ethyl, 2-(4-pyridyl)ethyl, 3-(pyrrolidin-1-yl)propyl, 2-[2-(ethoxy)ethoxy]ethyl, 3-(ethoxy)propyl, benzyl, cyclopropylmethyl, 2-(1-methylpyrrolidin-2-yl)ethyl, 2-(pyrid-4-yl)ethyl, 3-(pyrrolidin-1-yl)propyl, pentyl, 3-phenylpropyl, 3,4-(methylenedioxy)benzyl, 3-(pyrid-3-yl)propyl, 4-(N,N-dimethyl)phenethyl, 4-(butoxy)benzyl, 2-(cyclohexyloxy)ethyl, 3,5-dichlorophenyl, 2-(thien-2-yl)ethyl, 4-methylbenzyl, 2-phenylbenzyl, 3-(N,N-dimethyl)propyl, *tert*-butyl, 2-(phenoxy)ethyl, 2-[3-(6-methylpyrid-2-yl)propyloxy]ethyl, 2-(ethoxy)ethyl, 4-methoxyphenethyl, 4-methylphenethyl, or 3-(benzyloxy)propyl.

20. The compound of claim 1 which is a compound of formula (V):



wherein:

A<sub>10</sub> and A<sub>11</sub> are each independently alkylene or substituted alkylene;

each R<sub>26</sub> is independently halo, alkyl, substituted alkyl, aryl, heteroaryl, cycloalkyl, substituted cycloalkyl, heterocycle, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, trifluoromethyl, cyano, nitro, hydroxy, NR<sub>4</sub>R<sub>5</sub>, or CO<sub>2</sub>R<sub>6</sub>;

R<sub>27</sub> is hydrogen, alkyl, or substituted alkyl;

R<sub>28</sub> is an N-linked heteroaryl or an N-linked heterocycle;

t is 0, 1, 2, 3, 4, or 5; and

R<sub>4</sub>-R<sub>6</sub> are each independently hydrogen, alkyl, or substituted alkyl;

wherein any aryl of A<sub>10</sub>, A<sub>11</sub>, R<sub>26</sub>-R<sub>28</sub> and R<sub>4</sub>-R<sub>6</sub> can optionally be substituted with from 1 to 5 substituents R<sub>g</sub>; wherein each R<sub>g</sub> is independently selected from the group consisting of hydroxy, alkyl, substituted alkyl, alkoxy, cycloalkoxy, substituted cycloalkoxy, methanediol, ethanediol, cycloalkyl, substituted alkyl, substituted alkoxy, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy, carboxy, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heteroaryl, heteroaryloxy, heterocyclic, heterocycloxy, heteroaryl and trihalomethyl;

and wherein any heteroaryl of A<sub>10</sub>, A<sub>11</sub>, R<sub>26</sub>-R<sub>28</sub> and R<sub>4</sub>-R<sub>6</sub> can be optionally substituted with 1 to 5 substituents R<sub>h</sub>, wherein each R<sub>h</sub> is independently selected from the group consisting of hydroxy, alkyl, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, substituted alkyl, arylalkyl, heteroarylalkyl, heterocyclealkyl, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy, carboxyl, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heterocyclic, and trihalomethyl.

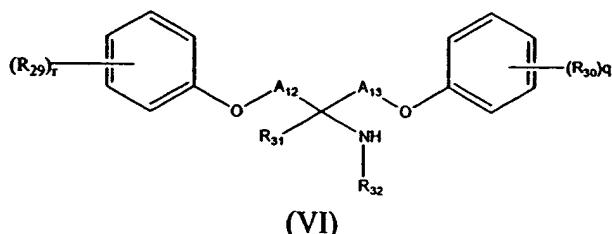
or a pharmaceutically acceptable salt thereof.

21. The compound of claim 20 wherein A<sub>10</sub> is methylene and A<sub>11</sub> is methylene.

22. The compound of claim 20 wherein R<sub>27</sub> is hydrogen or methyl.

23. The compound of claim 20 wherein  $R_{28}$  is 3,5-dimethylpyrazol-1-yl, 2-phenylimidazol-1-yl, 2-ethylimidazol-1-yl, 1-benzimidazolyl, 4-(methoxycarbonyl)imidazol-1-yl, 4-methyl-2-ethylimidazol-1-yl, or 4-phenyl-1-imidazol-1-yl.

24. The compound of claim 1 which is a compound of formula (VI):



wherein:

$A_{12}$  and  $A_{13}$  are each independently alkylene or substituted alkylene;

each  $R_{29}$  is independently halo, alkyl, substituted alkyl, aryl, heteroaryl, cycloalkyl, substituted cycloalkyl, heterocycle, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, trifluoromethyl, cyano, nitro, hydroxy,  $NR_4R_5$ , or  $CO_2R_6$ ;

each  $R_{30}$  is independently halo, alkyl, substituted alkyl, aryl, heteroaryl, cycloalkyl, substituted cycloalkyl, heterocycle, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, trifluoromethyl, cyano, nitro, hydroxy,  $NR_4R_5$ , or  $CO_2R_6$ ;

$R_{31}$  is hydrogen, alkyl, or substituted alkyl;

$R_{32}$  is alkyl, substituted alkyl, aryl, heteroaryl, cycloalkyl, substituted cycloalkyl, or heterocycle;

$r$  is 0, 1, 2, 3, 4, or 5;

$q$  is 0, 1, 2, 3, 4, or 5; and

$R_4-R_6$  are each independently hydrogen, alkyl, or substituted alkyl;

wherein any aryl of A<sub>12</sub>, A<sub>13</sub>, R<sub>29</sub>-R<sub>32</sub> and R<sub>4</sub>-R<sub>6</sub> can optionally be substituted with from 1 to 5 substituents R<sub>g</sub>; wherein each R<sub>g</sub> is independently selected from the group consisting of hydroxy, alkyl, substituted alkyl, alkoxy, cycloalkoxy, substituted cycloalkoxy, methanediol, ethanediol, cycloalkyl, substituted alkyl, substituted alkoxy, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy, carboxy, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heteroaryl, heteroaryloxy, heterocyclic, heterocyclooxy, heteroaryl and trihalomethyl;

and wherein any heteroaryl of A<sub>12</sub>, A<sub>13</sub>, R<sub>29</sub>-R<sub>32</sub> and R<sub>4</sub>-R<sub>6</sub> can be optionally substituted with 1 to 5 substituents R<sub>h</sub>, wherein each R<sub>h</sub> is independently selected from the group consisting of hydroxy, alkyl, alkoxy, substituted alkoxy, cycloalkoxy, substituted cycloalkoxy, substituted alkyl, arylalkyl, heteroarylalkyl, heterocyclealkyl, substituted cycloalkyl, amino, substituted amino, aryl, aryloxy, carboxyl, carboxylalkyl, carboxyl(substituted alkyl), cyano, halo, nitro, heterocyclic, and trihalomethyl.

or a pharmaceutically acceptable salt thereof.

25. The compound of claim 24 wherein A<sub>12</sub> is methylene or 1,1-ethanediyl and A<sub>13</sub> is methylene.

26. The compound of claim 24 wherein R<sub>31</sub> is hydrogen or methyl.

27. The compound of claim 24 wherein R<sub>32</sub> is 2-morpholinoethyl, 2-(pyrrolidin-1-yl)ethyl, 4-piperidinylmethyl, 3-(N,N-dimethylamino)propyl, 2-(1-methyl-pyrrolidin-2-yl)ethyl, 2-(4-pyridyl)ethyl, or 3-(pyrrolidin-1-yl)propyl.

28. The compound of claim 1, which is a compound shown in Tables I-XI; or a pharmaceutically acceptable salt thereof.

29. A pharmaceutical composition comprising a compound as described in claim 1; and a pharmaceutically acceptable carrier.
30. A method of treating a disease or condition associated with sodium channel activity in a mammal, comprising administering to the mammal, a therapeutically effective amount of a compound as described in claim 1.
31. The method of claim 30 wherein the disease or condition is neuropathic pain.
32. A method of treating a disease or condition associated with sodium channel activity in a mammal, comprising administering to the mammal, a therapeutically effective amount of a pharmaceutical composition of claim 29.
33. The method of claim 32 wherein the disease or condition is neuropathic pain.